STRATEGIES AND CHALLENGES IN ASSESSING AND TREATING OVERWEIGHT IN CHILDREN

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Gallup Indian Medical Center

- Navajo Area Indian Health Service Hospital
- Serving predominantly Navajo patients from the local urban area and rural Navajo Nation communities within a 30-50 mile radius
- Gallup, New Mexico population 20,000
- Providing inpatient and outpatient general pediatric care
- Pediatric Clinic staffed by 11 pediatricians and 1 nurse practitioner.

Envision New Mexico

- State-wide Quality Improvement Project
- Strategies to improve identification and management of pediatric overweight/obesity in clinic settiings
- Pilot testing an office-based intervention strategy

Envision New Mexico

- The pilot project emphasized:
  - time –efficient intervention
  - minimal data collection
  - quick method to identify
  - brief initial interventions
  - standard initial lab testing
  - follow-up

Envision New Mexico

- Components of the Intervention:
  - BMI and BMI % for age calculation and documentation
  - Convey key messages
  - Assess patient's readiness to change
  - Draw appropriate screening labs
  - Establish follow-up plan

Envision New Mexico

- BMI Documentation/Data Collection
  - Provider and Nursing Staff given training in the pilot project relevant to each of the areas of intervention and asked to assess the efficacy/value of various tools for accomplishing the intervention via PDSA cycles
  - Data from PDSA cycles reported back to clinic staff to plan subsequent PDSA cycles

Gallup/Envision Project

- Baseline Pediatric Overweight Interventions
  - Prior to project this was primarily done via height/weight determinations with minimal use of BMI
  - No consistent messages regarding diet/exercise were being conveyed by the 11 providers
  - No formal assessments of readiness to change were being done
  - Several standard lab testing protocols had been implemented over several years
  - No community based-programs for pediatric overweight intervention existed.

Gallup/Envision Project

- Identification of Pediatric Overweight
  - Project utilized a data collection sticker attached to all relevant charts to prompt providers to calculate BMI and BMI percentile for age and yield a weight category.
  - Stickers needed to be placed in prominent location on charts to enhance completion
  - Staff asked to use at all well patient encounters and encouraged to use for acute visits

Gallup/ Envision Project

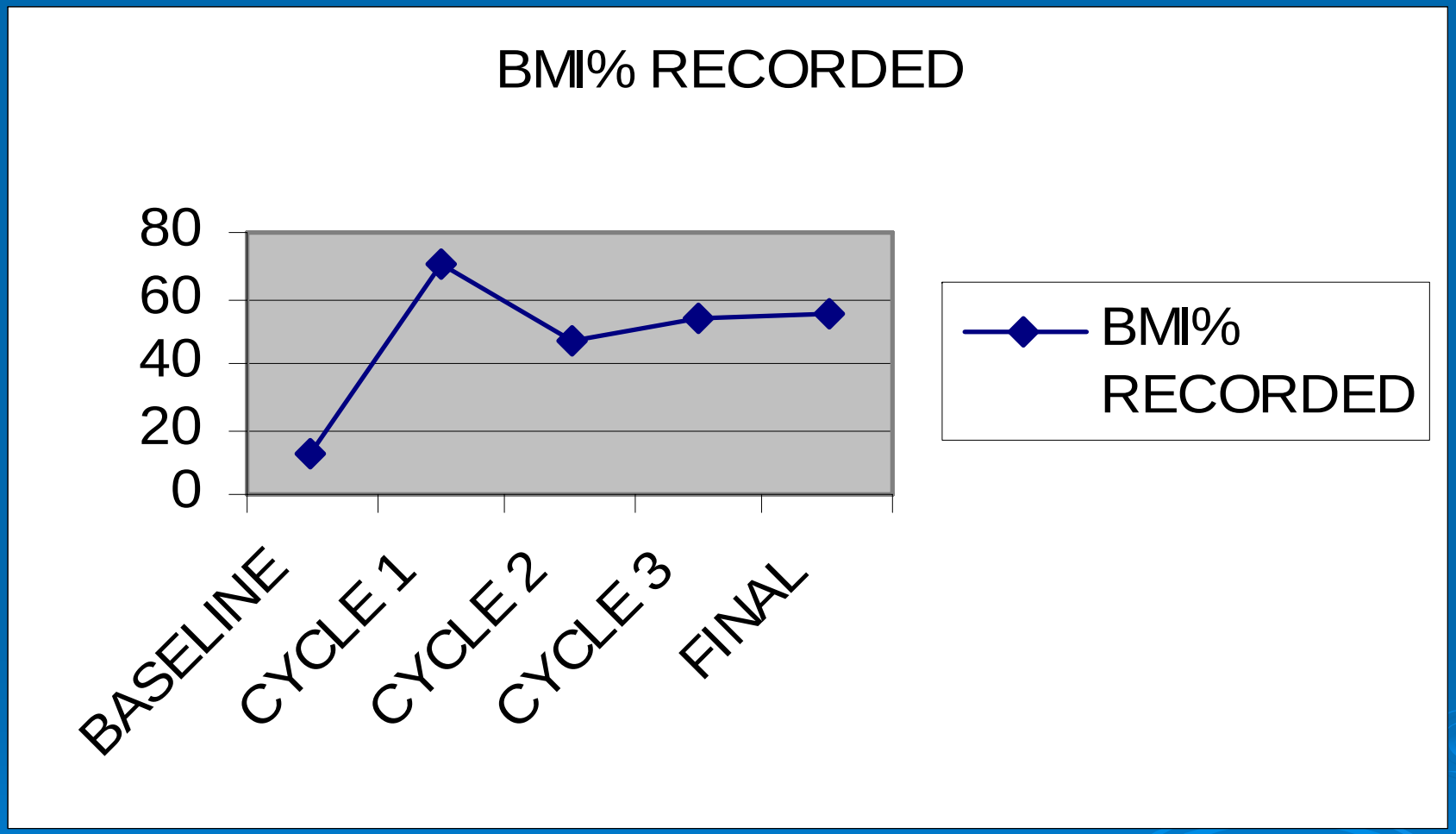
- Data Collection
  - A rapid rise in the % of patients having a BMI and BMI% calculated was seen initially during the summer months followed by a decline in the winter months as acute workload picked up
  - Reinforcement of the value of BMI/BMI% calculation resulted in a subsequent rise in % of patients with BMI but not to initial project level.

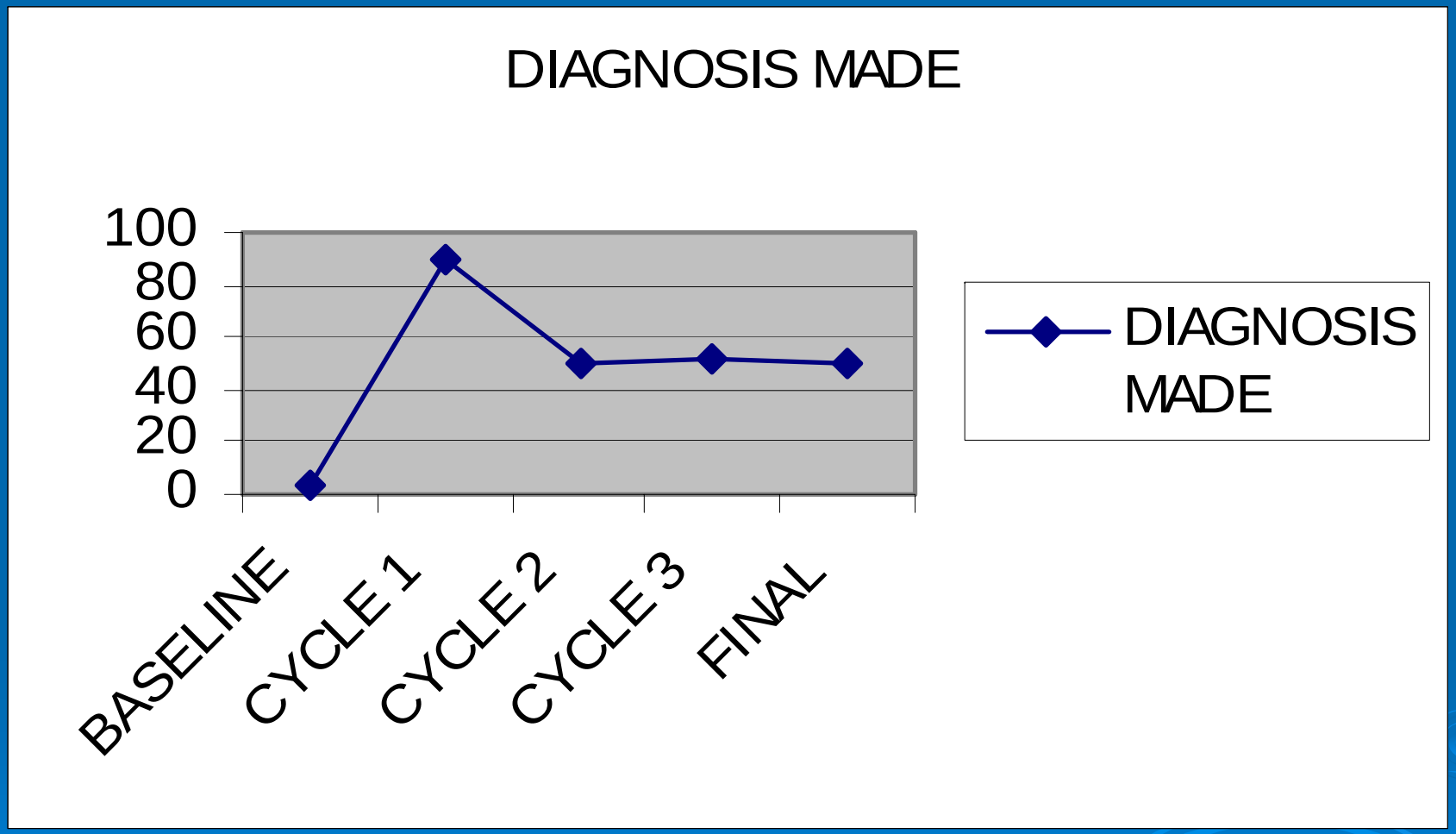
Gallup/Envision Project

- Data Collection
  - Gallup clinic is still utilizing PCC not EHR so PCC forms were modified to incorporate BMI to eliminate stickers once staff were accustomed to BMI use
  - RPMS Health Summary was modified to use Adult standard measurement panel rather than Pediatric standard measurement panel since this includes calculated BMI
  - Screening procedures modified to require height calculations at least once a year in addition all well child/teen encounters to have more valid BMI data on health summaries

Gallup/Envision Project

- Data Collection
  - ICD-9 codes for BMI added to PCC forms to allow more accurate coding (pending implementation)
  - Providers given responsibility to calculate BMI/BMI% at the visit to promote recognition/intervention
  - Stadiometers used for height measurements
  - Manual standing scales for weight
  - All blood pressures done manually for accuracy


BMI% RECORDED
80
60
40
20
0
BASELINE
CYCLE 1
CYCLE 2
CYCLE 3
FINAL
BMI% RECORDED


DIAGNOSIS MADE
100
80
60
40
20
0
BASELINE
CYCLE 1
CYCLE 2
CYCLE 3
FINAL
DIAGNOSIS MADE

Gallup/Envision Project

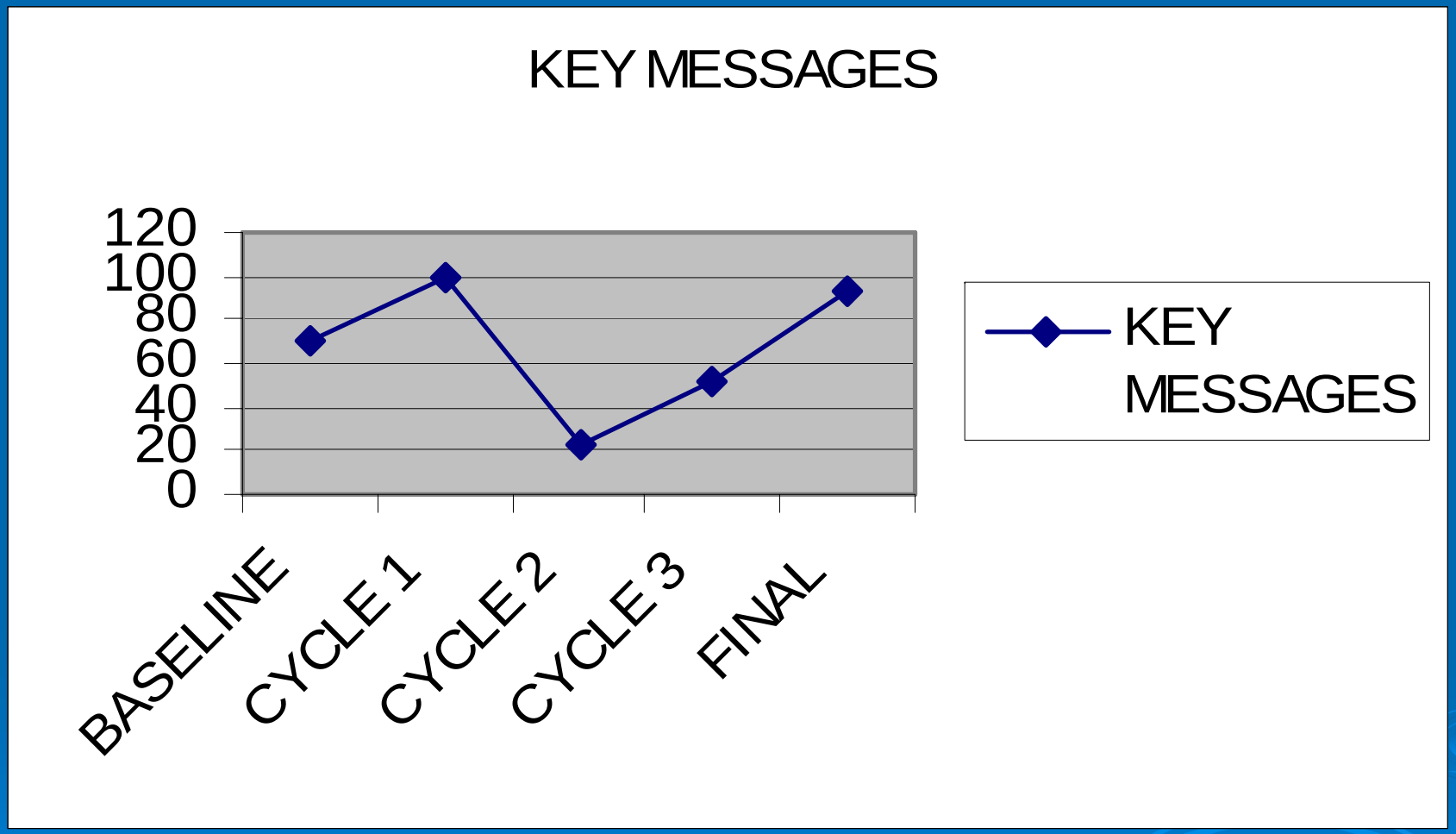
- Key Messages
  - 4 messages designed to facilitate a brief initial intervention in the office
    - Get up and play hard
    - Cut back on TV, computer and video games
    - Eat 5 servings of fruit/vegetables a day
    - Cut down on sodas and juice drinks

Gallup/Envision Project

- Key Messages
  - Posters with key messages prominently displayed in waiting areas
  - Posters in all exam rooms
  - Handouts with key messages in all exam rooms
  - Additional handouts developed offering more suggestions for diet/activity changes to make at home
  - Additional handouts on nutritional/sugar/calorie content of foods/drinks commonly encountered in our community developed. (Stop the Pop)

Gallup/Envision Project

- Key Messages
  - Emphasis placed on choosing just one intervention
  - Allowing patient/family to decide
    - Variable levels of interest in making a choice to commit to change/choosing a key message
  - Offering other resources
    - pediatric dietician
    - wellness center
    - additional visits to clinic


KEY MESSAGES
120
100
80
60
40
20
0
BASELINE
CYCLE 1
CYCLE 2
CYCLE 3
FINAL
KEY MESSAGES

Gallup/Envision Project

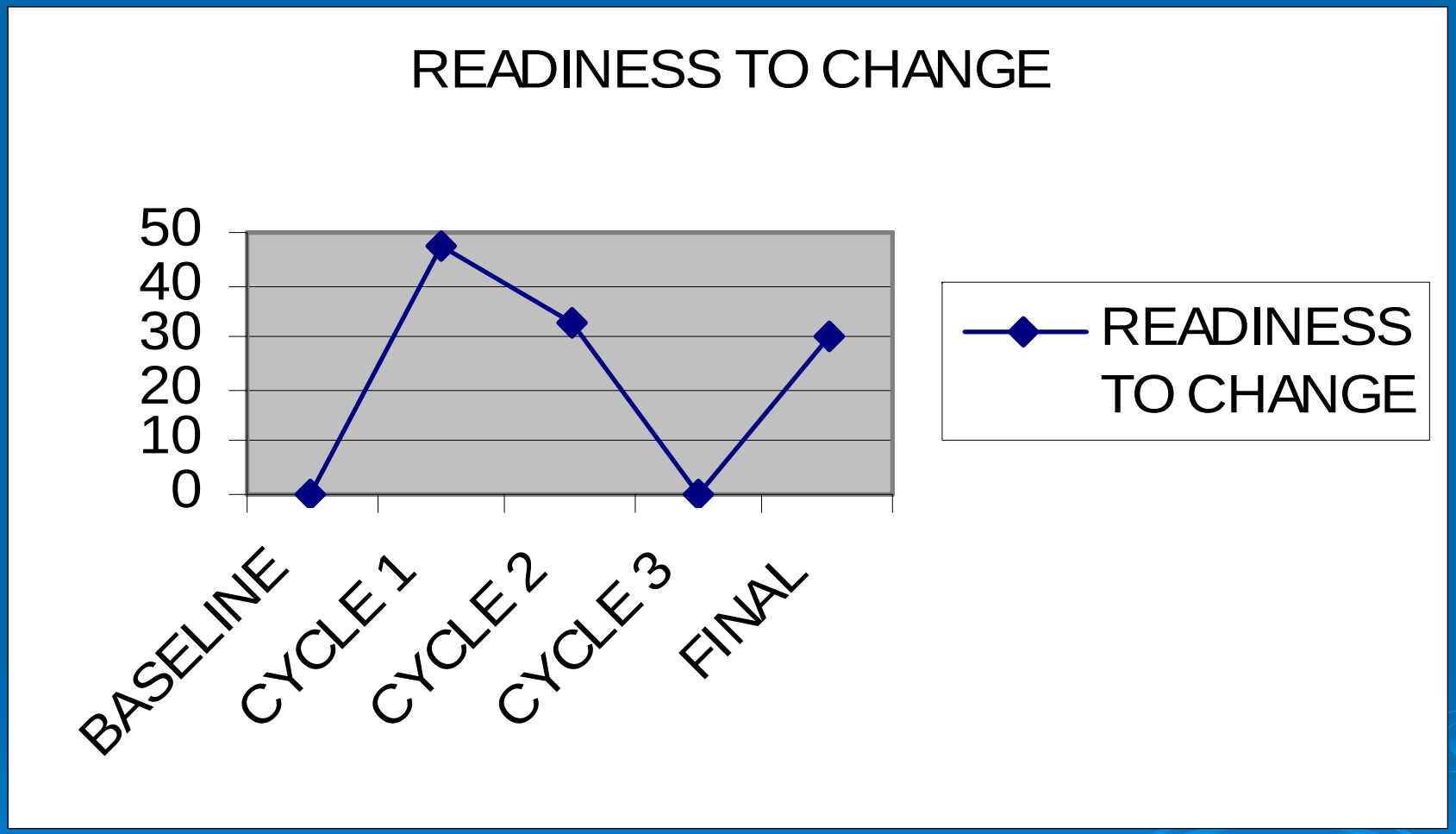
- Readiness to Change
  - Utilization of a ten point linear scale to ask patient to assess their readiness to change
  - Scales posted in exam rooms and explained briefly by providers
  - Providers introduced to motivational interviewing via presentation of concepts and role-playing visits

Gallup/Envision Project

- Readiness to Change
  - This was the most problematic element of the intervention
    - most difficult when patients/families did not present with weight concerns as the reason for visit. Easier in well visit/sports physical setting than in acute illness setting but still not readily accepted by patients/families unless this was their concern
    - easier to do with established patient/provider relationship

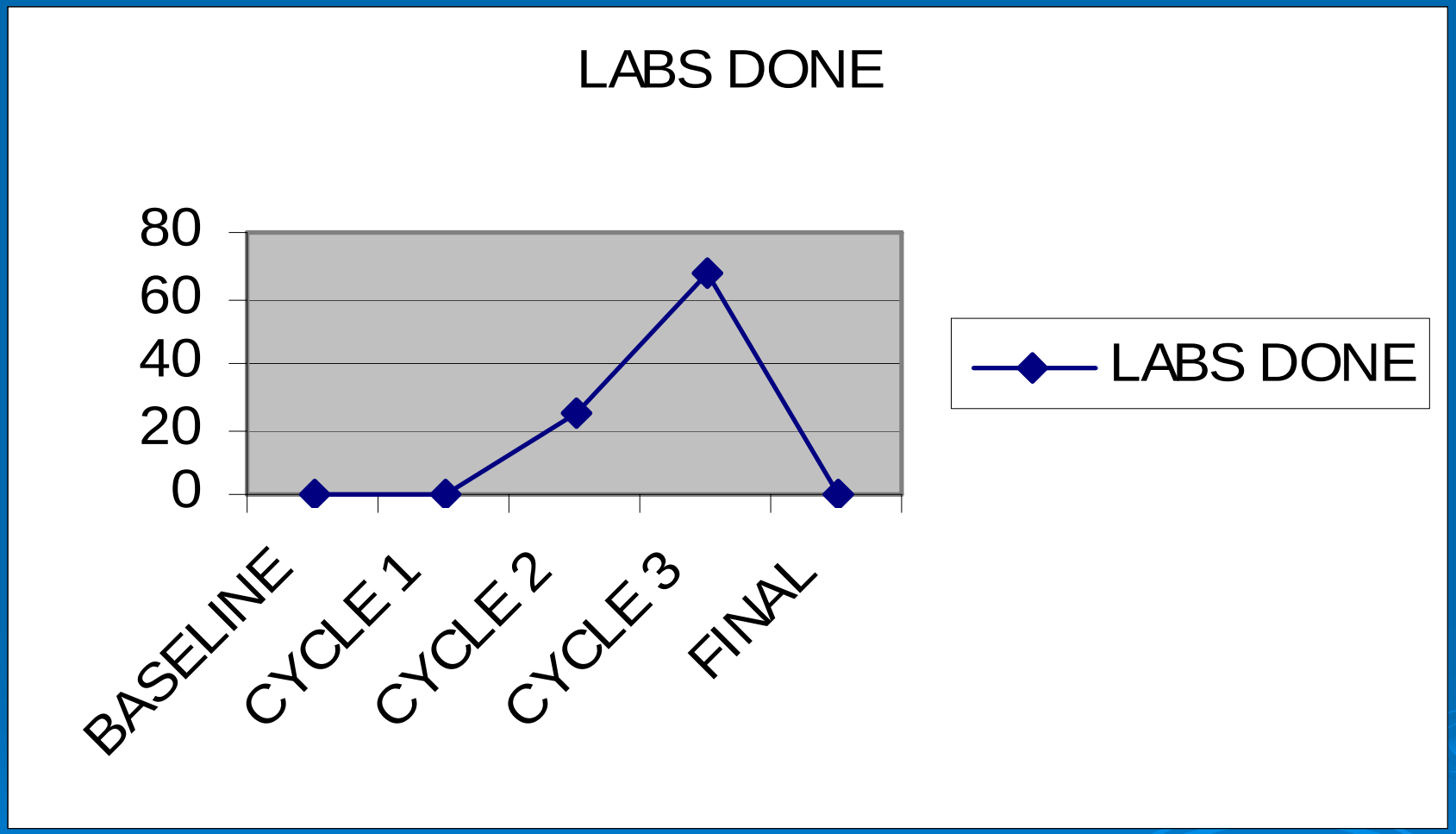
Gallup/Envision Project

- Readiness to Change
  - Many patients/families at 0 level of readiness when presented this information at visits for other reasons.
  - When there was some level of readiness to change other informational handouts and resources offered
  - If families do express readiness to change visits can become prolonged and decision about how much to engage that day versus at a follow-up visit needs to be made
  - Follow-up visit show rates have not been good although tend to be better if patient/family had concern/readiness to change scores higher


READINESS TO CHANGE
50
40
30
20
10
0
BASELINE
CYCLE 1
CYCLE 2
CYCLE 3
FINAL
READINESS TO CHANGE

Gallup/Envision Project

- Lab Testing
  - Offered and explained to those >85% BMI
  - fasting vs random testing and show rates
    - offering evening/weekend testing options
  - insulin levels
  - glucose tolerance testing
  - lipid panels
  - liver enzymes


LABS DONE
80
60
40
20
0
BASELINE
CYCLE 1
CYCLE 2
CYCLE 3
FINAL
LABS DONE

Gallup/Envision Project

- Follow-up Visits
  - All patients 85% or above offered primary care follow-up visit with identified primary provider
  - Review lab test
  - Review readiness to change and interventions attempted
  - Offer dietary/wellness interventions
  - Community resources

Gallup/Envision Project

- Community Outreach
  - Clinic providers meeting with other professionals/programs in the community
  - to share ideas/resource
  - Programs
    - Wellness camp (DM program and community)
    - Link to SBHC/School-based interventions
    - Enhancement of Wellness Center Programs
    - IHS DM Program/HPDP Programs
    - Outcome data collection

Gallup/Envision Project

- Outcome
  - Primarily aimed at assessing changes in provider practice not impact of project on weight/BMI among patients
  - Project did demonstrate that providers did make changes that were sustainable and that the components of the intervention could largely be incorporated into a busy pediatric clinic practice setting and enhance the consistency of identification and initial intervention of pediatric overweight

COMM-TC

- Telemedicine Project
  - Multidisciplinary teleconferences involving
    - University-based subspecialists
      - pediatric endocrinology
      - pediatric cardiology
      - pediatric nephrology
      - pediatric gastroenterology
      - pediatric psychiatry
      - pediatric dietician
      - psychologist
    - Community-based practitioners
      - pediatricians
      - family physicians
      - nurse practitioners
      - dieticians

COMM-TC

- Telemedicine Project
  - Biweekly teleconferences with:
    - individual patient case presentations and discussion
    - didactic sessions on topics relevant to pediatric overweight diagnosis and management
    - CME available

COMM-TC

- Telemedicine Project
  - Provides single point of access for community based providers to multiple subspecialists to consult on specific patients
  - provides a forum for subspecialists to interface with one another on management of pediatric overweight and appreciate the contributions/perspectives of various subspecialists in dealing with this complex problem
  - Enhances the knowledge/skills and comfort level of the community-based provider in establishing a medical home for these patients and addressing more diagnostic and management locally.

COMM-TC

- Telemedicine Project
  - Time commitment and availability
    - focused sessions
    - recorded sessions
  - Equipment/technical capabilities
    - lack of resources in many rural areas

Future Projects

- Adapting the PCC-based intervention to EHR
- Collaborating with DM program/Wellness Center/HPDP/SBHC/Private Sector providers to develop community-based intervention
- Evaluate patient outcomes
  - track global pediatric BMI trends in PCC data
  - track identied cohorts of patients
  - evaluate outcomes from community-based interventions